



# INTERSTATE 81 UPDATE

## I-81 Tier 1 DEIS Available for Public Review

The Virginia Department of Transportation (VDOT) has reached a major milestone in planning the future of Interstate 81 with the completion of the Tier 1 Draft Environmental Impact Statement (DEIS). The document identifies the current problems on I-81, anticipated future conditions, and a range of possible solutions to keep people and commerce moving safely and efficiently in the years to come.

The Tier 1 DEIS evaluates and assesses the potential effects associated with conceptual-level highway and rail improvements in Virginia. It identifies deficiencies and describes projected travel conditions in the year 2035. The document serves as a basis for transportation officials to make informed decisions prior to proceeding with the development of individual projects. Specific details, such as interchange layouts, right of way widths and toll rates (if implemented), would be determined in Tier 2. Such details also would allow more refined analyses of potential environmental impacts in Tier 2.

Some of the conclusions outlined in the study include the following:

- During the last 25 years, travel demands along the interstate have more than doubled and nearly tripled in some locations. Travel conditions are expected to further deteriorate by 2035. Improvements are needed to address safety and congestion problems.

- A concept with a varying number of lanes would most efficiently address the capacity needs.
- Rail improvements alone do little to address future needs on I-81, but they could complement roadway improvements.
- Traffic diversions to other roads as a result of tolling I-81 are relatively low.
- Potential environmental effects do not vary substantially between the improvement concepts considered in the Tier 1 DEIS.
- The corridor can be divided into eight independent sections for future studies.
- For most of the corridor, improvements can be constructed on the existing alignment.

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### Public Hearing Open Houses are scheduled from 5:00 p.m.-8:00 p.m. at the locations shown below:

The exhibit panels will be available for public viewing beginning at 1:00 p.m.

Tuesday, April 11	Tuesday, April 11	Wednesday, April 12
Roanoke Wyndham Hotel 2801 Hersherberger Road Roanoke, VA	Wytheville Community College 1000 East Main Street Wytheville, VA	Bristol Holiday Inn & Conference Center 3005 Linden Drive Bristol, VA
Monday, April 17	Tuesday, April 18	Wednesday, April 19
Natural Bridge Hotel & Conference Center 15 Appledore Lane Natural Bridge, VA	Winchester Travel Lodge 160 Front Royal Pike Winchester, VA	Turner Ashby High School * 800 N. Main Street Bridgewater, VA

\* For the April 19 public hearing, the exhibit panels will be available for viewing at 1:00 p.m. at VDOT's Harrisonburg Residency Office, 3536 North Valley Pike. From I-81, take Exit 251, and go left off the ramp onto Route 11. The residency is 200 yards on the left.

Additional information on upcoming public meetings, public hearings and workshops will be posted regularly at: [www.VirginiaDOT.org](http://www.VirginiaDOT.org) and [www.I-81.org](http://www.I-81.org).

# I-81

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- There are two sections where a new road may be considered in Tier 2: the I-77 overlap near Wytheville; and between Mileposts 243 and 251 at Harrisonburg.
- The majority of potential impacts occur at the 93 interchanges along I-81.

## PROCESS STREAMLINING AGREEMENT

In November 2003, Federal Highway Administration (FHWA) and VDOT signed a Process Streamlining Agreement on how the environmental review process would be carried out for the I-81 Corridor Improvement Study. The agreement was the first of its kind in Virginia that defines decisions and process to ensure environmental issues are fully addressed within a specific timeframe.

The study is being conducted in two tiers, each leading to specific decisions. This tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. That may position VDOT to go forward with improving some sections of the corridor sooner rather than later.

## VDOT INVITES YOUR COMMENTS

Beginning April 11, VDOT will hold a series of six public hearings to present the results of the Tier 1 analysis that has been completed for the study. The public hearings provide an opportunity for citizens, local governments, public agencies and other organizations to comment on the Tier 1 DEIS. All comments will become part of the study's public record.

During the public hearings, maps and exhibits depicting the improvement concepts will be on display, and members of the study team will be available to answer questions, receive comments, and discuss potential impacts from the various improvement concepts.

Comments can be submitted verbally or in writing during the public hearing, or in writing anytime during the comment period. To submit comments on the Tier 1 DEIS, you may select any or all of the following methods:

- Provide comments in private to a court reporter during the public hearing;
- Complete the comment form provided at the hearing;
- Submit comments at [81info@VirginiaDOT.org](mailto:81info@VirginiaDOT.org); and/or
- Submit your comments by mail postmarked no later than April 29, 2006, to:

Project Manager Christopher Collins  
Environmental Division  
Virginia Department of Transportation  
1401 E. Broad Street  
Richmond, VA 23219



## PURPOSE AND NEED

Based on recent travel and development trends, as well as traffic modeling forecasts, traffic volumes along I-81 are expected to grow. These increasing traffic volumes will result in deteriorating operating conditions in many locations along the corridor by 2035. Existing and future transportation deficiencies on I-81 are summarized below.

### Capacity

- Since 1978, travel demands along I-81 have more than doubled and nearly tripled in some locations.
- Traffic volumes from 2004 are expected to almost double by 2035.
- Truck traffic is projected to grow at a faster rate than general traffic.
- More than 90 percent of I-81 is projected to operate below the level of service standard in 2035.

### Safety

- Twenty-four northbound miles and 21 southbound miles have crash rates more than 25 percent higher than the statewide average.
- Eight of these miles have crash rates more than twice the statewide average.
- Trucks constituted 29 percent of the total vehicle miles traveled on I-81 between 2000 and 2002, and trucks were involved in 29 and 30 percent of all crashes and fatal crashes, respectively.
- Safety is a problem at some locations today and could worsen by 2035, as traffic volumes increase and existing geometric conditions remain.

## IMPROVEMENT CONCEPTS EVALUATED

More than 200 potential solutions to future problems on I-81 were evaluated in the I-81 Tier 1 DEIS. Each solution was evaluated against conditions expected on I-81 in the year 2035 to see if it would meet or exceed the future needs of the corridor.

### Highway Concepts

- Provide additional travel lanes in each direction (may include one, two or three lanes in each direction, or variations thereof)

### Rail Concepts

- Consist of a new railroad as well as increasing the length of and adding sidings at various locations along Norfolk Southern's Piedmont line and Southern Shenandoah line

### Combination Concepts

- Combinations of the stand-alone highway concepts and rail concepts

### Two-lane Exclusive Truckway

- Construction of one exclusive truck lane in each direction that is separated from the exclusive car lanes by a concrete barrier
- Construction of ramps to connect the truck lanes to the existing interchanges
- Cars are restricted to the car lanes, and trucks are restricted to the truck lanes
- Varies from one additional car lane in each direction, to two additional car lanes in each direction

### Four-Lane Exclusive Truckway

- Construction of two exclusive truck lanes in each direction separated from the exclusive car lanes by a concrete barrier
- Construction of ramps to connect the truck lanes to the existing interchanges
- Cars are restricted to the car lanes, and trucks are restricted to the truck lanes
- Varies from no additional car lanes, one additional car lane in each direction, and two additional car lanes in each direction

### Four-Lane Non-Exclusive Truckway

- Construction of two non-exclusive truck lanes in each direction separated from the other lanes by rumble strips
- Allows trucks to use the existing interchanges without constructing additional ramps
- Cars are restricted to the general-purpose lanes, and trucks may use either the truck lanes or the general-purpose lanes
- Varies from no additional general-purpose lanes, one additional general-purpose lane in each direction, and two additional general-purpose lanes in each direction

### Four-Lane Exclusive Car Lanes

- Construction of two exclusive car lanes in each direction separated from the truck lanes by a concrete barrier
- Construction of ramps to connect the car lanes to the existing interchanges
- Existing lanes in each direction used only by trucks
- May include the addition of one lane in each direction for trucks only, as well as two additional lanes in each direction for trucks only

### Four-Lane Non-Exclusive Car Lanes

- Construction of two exclusive car lanes in each direction separated from the other lanes by a concrete barrier
- Construction of ramps to connect the car lanes to the existing interchanges. This also permits cars the option of traveling in the general-purpose lanes with trucks
- Varies from no additional general-purpose lanes, one additional general-purpose lane in each direction, and two additional general-purpose lanes in each direction

## POTENTIAL IMPACTS

A variety of roadway and rail improvement concepts have been developed to address the need for increased capacity and improved safety. Because the number of these improvement concepts is so large, and consistent with a tiered approach, a representative number of impact templates were developed for the purpose of illustrating potential impacts on the natural and human environment. These templates included a narrow-sized footprint and a wide-sized footprint. The potential environmental impacts described in the Tier 1 DEIS are considered preliminary since they are based on concept-level improvements.



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If an improvement concept is advanced to Tier 2, the actual environmental impacts would likely change (and may decrease) as a result of more detailed investigations during the Tier 2 process. A discussion of the potential environmental consequences, such as wetland impacts and impacts to parks and recreation areas, can be found in Chapter 5 of the Tier 1 DEIS.



If the Commonwealth Transportation Board advances an improvement concept, VDOT would prepare a Final EIS and submit it to FHWA for review and approval. If approved, FHWA would issue a Record of Decision (ROD) on Tier 1. If a proposed improvement concept is advanced, Tier 2 studies would commence.

## UP NEXT: TIER 1 DECISIONS

At the conclusion of Tier 1, decisions will be made on:

- The improvement concepts for highways and rail facilities;
- Advancing I-81 as a toll pilot under Section 1216(b) of the Transportation Equity Act for the 21st Century (TEA-21);
- Projects with independent utility and logical termini to be studied in Tier 2;
- The types of Tier 2 National Environmental Policy Act (NEPA) documents;
- The location of the corridor for studying alignments in Tier 2; and
- Possible purchase of certain right of way parcels on a case-by-case basis.

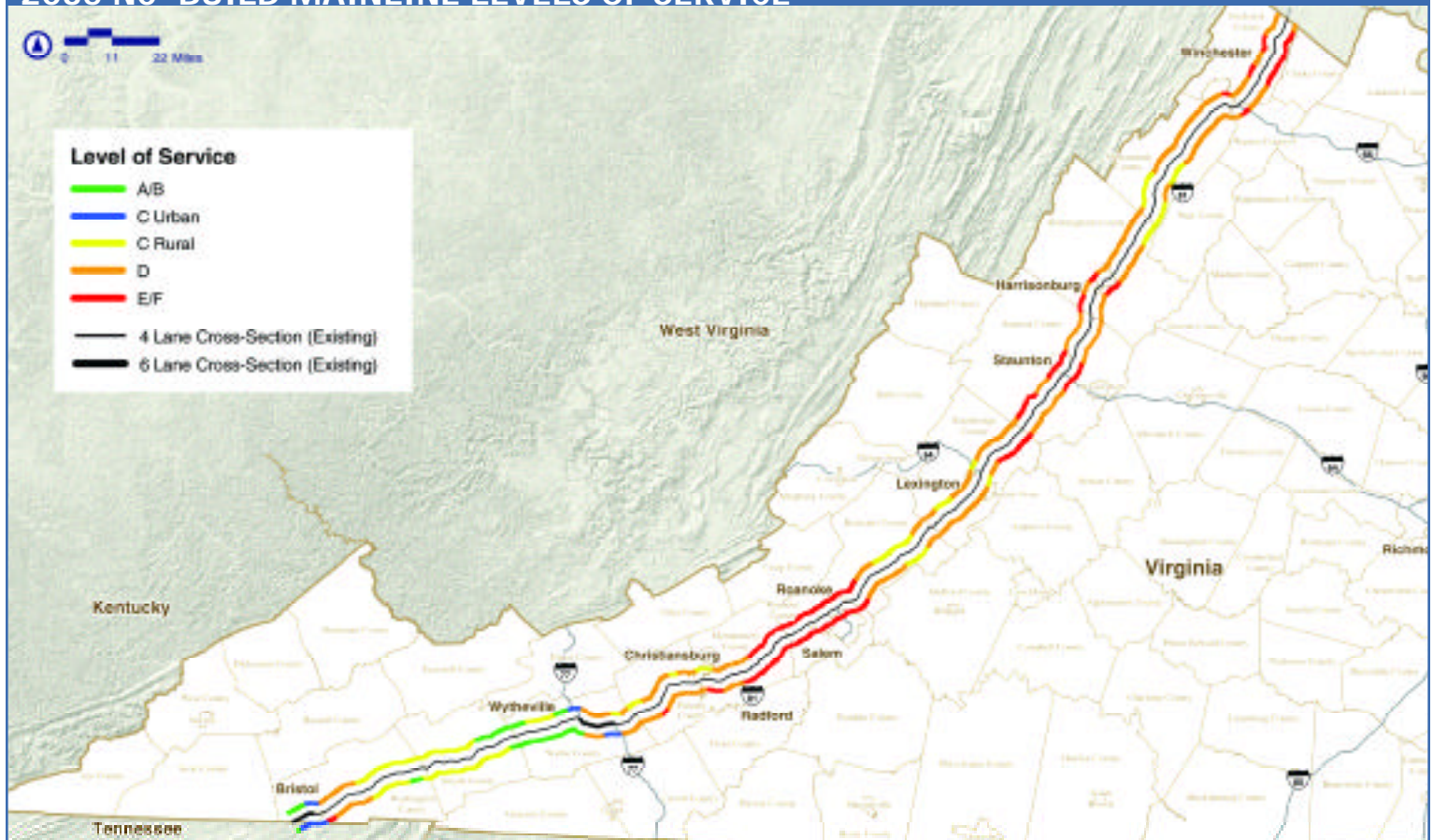
## RAIL

In addition to addressing future needs with highway improvements, the Tier 1 DEIS evaluates the effectiveness of rail improvements in meeting the identified needs.

Four rail improvement concepts were evaluated. The rail study area consists of 13 discrete sections along existing Norfolk Southern's Piedmont and Shenandoah rail lines in Virginia. The lengths of the rail improvement sections range from less than one-half mile to 10 miles, with most sections between one and two miles long.

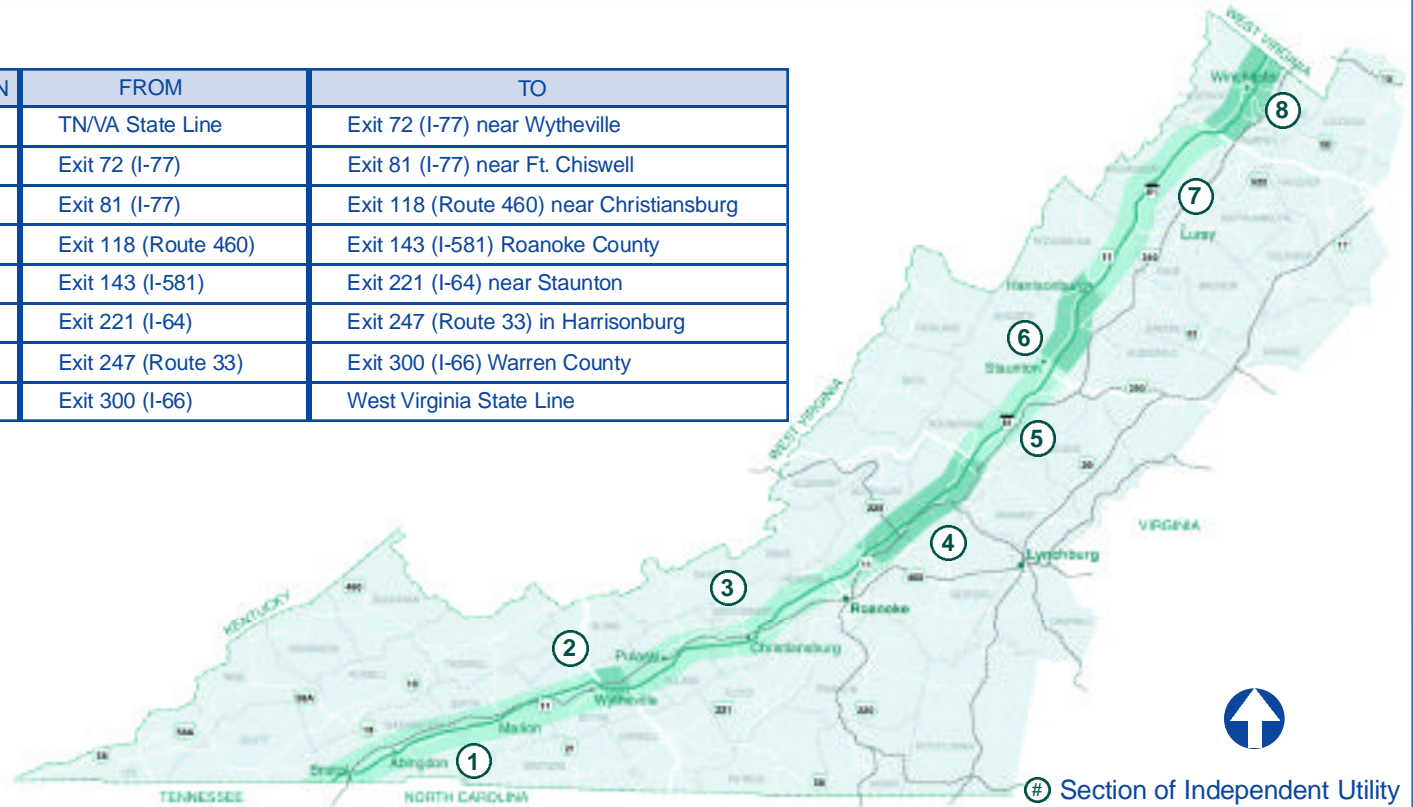
The Tier 1 DEIS demonstrates that rail improvements alone do little to address future needs on I-81; however, they could complement roadway improvements.

## 2035 NO-BUILD MAINLINE LEVELS OF SERVICE



## SECTIONS OF INDEPENDENT UTILITY

SECTION	FROM	TO
1	TN/VA State Line	Exit 72 (I-77) near Wytheville
2	Exit 72 (I-77)	Exit 81 (I-77) near Ft. Chiswell
3	Exit 81 (I-77)	Exit 118 (Route 460) near Christiansburg
4	Exit 118 (Route 460)	Exit 143 (I-581) Roanoke County
5	Exit 143 (I-581)	Exit 221 (I-64) near Staunton
6	Exit 221 (I-64)	Exit 247 (Route 33) in Harrisonburg
7	Exit 247 (Route 33)	Exit 300 (I-66) Warren County
8	Exit 300 (I-66)	West Virginia State Line



## TOLLING

A toll impact study was conducted to determine the effects of traffic diversion from I-81 to other roadways as a result of implementing different toll scenarios.

Five toll scenarios were considered:

- 1) no toll;
- 2) low toll for all vehicles;
- 3) high toll for all vehicles;
- 4) low toll for trucks; and
- 5) high toll for trucks.

The low and high toll rates represent a reasonable rate that could be charged based on research of similar existing toll facilities.

Generally, the higher the toll, the more traffic will divert from I-81 to other facilities, which reduces the number of additional lanes required along I-81. However, the diversion of traffic (regardless of toll scenario) is relatively low.

## WHAT HAPPENS IN TIER 2?

As a result of the Tier 1 study, eight individual sections that have both independent utility and logical termini have been identified along the I-81 corridor. These sections are referred to as Sections of Independent Utility (SIU). Independent utility means that improvements would be a usable and reasonable expenditure even if no additional transportation improvements in the area are made. Logical termini are considered the rational beginning and end points for these improvements. If a proposed improvement concept is advanced, SIUs would undergo additional analysis during Tier 2, as appropriate.

The type of documentation required for each SIU would be evaluated based on two initial criteria: 1) the nature of the proposed improvement (e.g., the type of transportation improvements that would be constructed); and 2) the degree – or significance – of any impacts to the environment (e.g., natural, cultural and socioeconomic impacts). Chapter 6 of the Tier 1 DEIS contains additional information on the type of Tier 2 document anticipated for each SIU.

Decisions that would be made upon completion of each Tier 2 study are:

- Approval of conceptual design features of the improvements for components identified in Tier 1;
- Authority to use federal funds on final design of the improvements;
- Authority to acquire right of way;
- Eligibility for federal funding for construction; and
- Approval to modify access to I-81.

# I-81

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- DEIS Circulated/Public Hearings Scheduled
- VDOT Invites Your Comments
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## PLACES TO VIEW DEIS

The Tier 1 DEIS is posted on [www.I-81.org](http://www.I-81.org).

Paper copies of the I-81 Tier 1 DEIS are available at various locations throughout the study area. For a list of these review locations, please check VDOT's Web site for this study at [www.I-81.org](http://www.I-81.org).

Free CDs containing the Tier 1 DEIS are available at VDOT district and residency offices along the I-81 corridor or by writing to [81info@VDOT.Virginia.gov](mailto:81info@VDOT.Virginia.gov).

## SCHEDULE

The following steps are required to complete the Tier 1 process:

**Tier 1 Draft EIS Circulation** **November 2005 - April 2006**  
Documents the traffic, engineering and environmental information

**Public Hearings** **April 2006**  
Provides opportunity for the public to comment on the Tier 1 Draft EIS  
The public comment period ends April 29, 2006

**Tier 1 Final EIS** **Fall 2006**  
Documents Commonwealth Transportation Board (CTB) action and addresses the substantive comments on the Tier 1 DEIS and from the public hearings

Following completion of the Tier 1 Final EIS, a Record of Decision would be requested from FHWA. Once a ROD is obtained on the Tier 1 Final EIS, the detailed Tier 2 studies are expected to be advanced in phases.

## PUBLIC INPUT IS IMPORTANT

Throughout the development of the I-81 Corridor Improvement Study, members of the study team have received input from the public. There are several ways you still can provide your comments and opinions to VDOT regarding the study, including:

- Submitting comments to VDOT during the review and comment period for the Tier 1 DEIS, which ends April 29, 2006.
- Attending any of the public hearings on April 11, 12, 17, 18 and 19, 2006;
- Reading study information, including information from past public meetings and publications, on [www.I-81.org](http://www.I-81.org); or
- Contacting VDOT Project Manager Christopher Collins by e-mailing him at [CG.Collins@VDOT.Virginia.gov](mailto:CG.Collins@VDOT.Virginia.gov) or by calling (804) 225-4249.